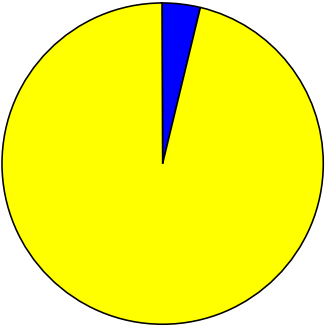


Department of Information Technology

70-01-E-Government

Fund/Agency: 001/70		Department of Information Technology
Personnel Services	\$1,332,621	<p style="text-align: center;">CAPS Percentage of Agency Total</p>  <p style="text-align: center;">3.8%</p> <p style="text-align: center;">96.2%</p> <p style="text-align: center;"> ■ E-Government ■ All Other Agency CAPS </p>
Operating Expenses	\$203,629	
Recovered Costs	\$0	
Capital Equipment	\$0	
Total CAPS Cost:	\$1,536,250	
Federal Revenue	\$0	
State Revenue	\$0	
User Fee Revenue	\$0	
Other Revenue	\$0	
Total Revenue:	\$0	
Net CAPS Cost:	\$1,536,250	
Positions/SYE involved in the delivery of this CAPS	16/16	

► CAPS Summary

The e-government program in the Department of Information Technology (DIT) develops and maintains systems that provide information and services to citizens through electronic mediums. This program supports the County's mission to provide convenient, efficient, effective and timely information and transactions with government, 24 hours a day, 7 days a week. E-government is the hallmark of the benefits obtained through solid planning and investment in information technology, providing the catalyst for a change in the way government operates. Utilizing concepts of e-business and e-commerce, the e-government program facilitates the connection between citizens, the government, and back-end business systems. Further, e-government gives the County an additional means to meet growing demand and expectations. The County's e-government program is considered a best practice in government, being recognized by national organizations, and in government and technology publications and journals. Officials from over nine different countries have visited the County specifically to gain insight on how to establish a good e-government program.

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Purpose

E-government provides the public with responsive and flexible alternatives for obtaining information and services and to allow residents to conduct business with the County at their convenience. The fundamental premise is to build a "government without walls, doors, or clocks" – that is, provide access to information and services 24 hours a day, seven days a week from the constituents home, office or other convenient location, anywhere. The Public Access Technologies group achieves this by working with County agencies and other public and private sector entities to improve business operations and accommodate the growing variety of services and needs by thoroughly understanding business needs and by planning, implementing and managing the best public access solutions available.

Background

The three technology platforms comprising the County's e-government initiative are:

- **Information Kiosks** that use multimedia (audio, video, graphics and text) touch screen technology to provide information at times and locations convenient to the public. The Kiosk program began in 1996 with 2 units (located at two regional libraries). There are currently 25 kiosks in 22 locations around the County.
- **Interactive Voice Response (IVR)** units that permit telephone callers to select information and services from audio menus via a touch-tone telephone. The County IVR system was introduced in 1994.
- The **Fairfax County Web Site**, located on the World Wide Web at www.co.fairfax.va.us provides information to the public worldwide through the Internet and the World Wide Web. The County web site was launched in 1996 with approximately 600 pages of information from 12 agencies. The County site currently includes over 12,000 documents and nearly four dozen interactive applications, with more than 60 agencies participating.

Prior to FY 2001, these three technology platforms were considered and managed as separate programs. The various platforms were initially established responding to specific needs of agencies and the public. With technology evolving, and becoming more standard, the County recognized the opportunity to use all three as conduits to providing information and doing County business. Within the last year, these three technologies have been consolidated under one management team-the Public Access Technologies group in DIT. Many of the same information look-ups and business transactions are available on all three. This provides a holistic solution to making service available to all constituents regardless of their ability to own technology. Efforts are underway to integrate the three County platform architectures, make more County services accessible through public access technology, and provide seamless connectivity to State and Federal e-government programs and services.

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Initiatives

A number of significant initiatives occurred during FY 2001 to extend and enhance the capabilities and services provided by the e-government platforms.

- **Web Redesign.** The Fairfax County Web Site was completely redesigned to provide a more consistent and useful experience for users of the system. The navigation of the site was changed to be less agency-oriented and more intuitive for the user. A consistent “look and feel” was incorporated into the site to ensure County “branding”, and to provide a consistent user interface (navigation, menu options, etc. located in the same area on all pages). The new look was also designed with the ADA compliance mandates in mind. The search engine was improved to provide more meaningful results, thereby allowing quicker access to the desired information. A “contact us” database capability was added to each page to quickly allow users to find relevant phone numbers and e-mail addresses. A “relevant resources” feature was added at the topic level to provide a context-sensitive portal to additional information sources (i.e., information available beyond what is on the web site).
- **Kiosk Redesign and Web Enable.** The County Kiosk interface was redesigned to more accurately categorize the ever-expanding content, and to install a more professional looking and user-oriented presentation. The Kiosks were also web-enabled, allowing them access to provide information and services directly from the County web site.
- **324-INFO.** A significant upgrade was made to the County IVR system with the implementation of the new 324-INFO application. This new application provides a set of menus to information and services available from nearly two dozen County agencies. 324-INFO provides a “24-hour-a-day Information Connection to Fairfax County”. The continued expansion of the County IVR system epitomizes the County’s commitment to bridging the digital divide.
- **Consumer Complaint Lookup.** This new feature on the County web site allows residents and others to search for complaint history against businesses located within the County. Furthermore, the facility allows residents to file a complaint from their location, and at their convenience, via the web site.



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- Real Estate Assessment (RE) "Comparable Properties" and Parcel Map lookup. A major new feature was added to the existing Real Estate Assessment query to allow residents to easily obtain information on properties comparable to theirs from an assessment perspective. This new feature was made available in conjunction with the mailing of the new RE assessment statements in late winter. In addition to providing residents with a valuable tool for researching any assessment questions, the feature also eliminated thousands of phone calls which would have normally been received by the Department of Tax Administration. In order to further enhance the RE query on the web, a Parcel Map lookup feature was added as well. Residents and others can quickly toggle between the RE assessment displays and the GIS-based parcel maps.
- IVR "Recycling Special Collections". A new feature was added to the IVR system to allow residents to request special pickups for items which are not part of the normal trash collection process.
- In addition to the specific examples above, numerous new information areas and transactions were added to all three e-government platforms.

Initiative	Efficiency Gain	Customer Convenience	Cost Savings	State/Federal Mandates
Web Redesign		X		X
Kiosk Redesign & Web Enable	X	X		X
324-Info	X	X	X	
Consumer Complaint Lookup	X	X	X	
Real Estate Assessment "Comparable Properties"	X	X	X	
IVR "Recycling Special Collections"	X	X	X	

Accomplishments

The County e-government program has been hugely successful. For the three year period from the beginning of FY 1999 to the end of FY 2001, the combined "user sessions" for the three platforms exceeds 20,000,000. Each user session represents either a call to the IVR system or a unique "visit" to the Kiosk or Web site. Each of these calls or visits, in turn, represents an access to information or the completion of a business transaction. The following samples illustrate some of these activities:

	<u>Transactions</u>	<u>Revenue</u>
Kiosk/IVR tax payments: (FY 1999)	92,001	\$1,939,937
Web CC tax payments: (October 1,2000-February 28,2001)	27,619	\$8,249,917
Web e-check tax payments: (July 1999-April 2001)	24,253	\$8,309,410
Web/IVR assessment queries: (FY 2001)	>400,000	
Traffic Fine payments: (FY 1999-FY 2000)		\$1,465,798
Web Library Card Applications: (FY 2001)	2,000	
IVR Housing Waiting List Inquiries:	50,380	
IVR "Special Pickups": (first half FY 2001)	51,722	

The following chart demonstrates the business transaction functionality currently implemented on each of the platforms.

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Accomplishments

Access to Property Assessment Information	Web, IVR
Scrollable, Printable County Maps	Web, Kiosk
Inspection Scheduling	Web, Kiosk, IVR
Adult Education Classes	Web
Bus Tour Schedule	Web, Kiosk
Become a Child Care Provider	Web, Kiosk
Child Care Provider List	Web
Crime Statistics, Wanted List, Neighborhood Watch	Web
Health Information	Web, Kiosk, IVR
Housing Information	Web, Kiosk, IVR
Newcomer Information	Web, Kiosk
Park/Recreation Information	Web, Kiosk, IVR
Public Safety	Web, Kiosk, IVR
Information/Programs for Seniors	Web, Kiosk, IVR
Budget Information and Approved Budget	Web
County Demographics	Web
Job Opportunities	Web, Kiosk
Circuit, General District, and Juvenile Courts	Web, IVR
Electronic Case Filing	Web
Access full text of County Code	Web
Meeting minutes (searchable) of Board meetings	Web
Multi-jurisdictional Information	Kiosk
Tax Payments with Credit Card	Web, Kiosk, IVR
Tax Payments via e-check	Web
Access to current Real Estate Assessment information	Web, Kiosk, IVR
Access to Human Services online "Resource Guide"	Web
Access Library Card Catalog, reserve/renew book	Web
Download RFP/IFBs	Web
Pay Traffic Ticket with Credit Card	IVR, Kiosk
Access specific Court Case Information	IVR
Report vehicle sale or "move out" with prorated calculator	Web
Report change of address for tax purposes	Web
Report a lost pet	Web
Find location of closest Library by entering zip code	Web
Request/check status of an inspection	Web, Kiosk, IVR
Renew Vehicle Registration	Web, Kiosk
Subscribe to County Publications	Web, Kiosk
Apply for County Jobs	Web, Kiosk
Locate Facilities and Public Transportation	Web, Kiosk
Direct Connect to County Staff	Kiosk, IVR
GIS photography	Web, Kiosk
Query victim's services data for offender release date info	IVR
Query for position on Housing waiting list	Kiosk, IVR

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Initiatives, Future Directions, Trends, and Issues

Integrate the information architectures of all three platforms

The goal of the e-government staff is to identify a single information architecture, which will encompass all current, as well as future, delivery vehicles (e.g., Web, IVR, Kiosk). This process has already started with the web-enabled Kiosks. A single information and transaction repository will be developed to provide content and functionality to all the technology platforms. This will lead to significant internal efficiencies as well as information consistency.

Investigate XML for improving interoperability

XML provides the underlying architecture, which will allow for a single repository, e-government portal to all County information and services. Further, XML forms the foundation of inter-governmental initiatives such as "Government Without Boundaries".

Investigate content management

Content management (CM) provides a set of tools to allow for more active content contribution from agency staff. Content management will allow agencies to quickly add or update information without the need for technical expertise. Business staff within the agencies will be able to publish content to the web, or other platforms, from their desktops as easily as producing a Word document. Pre-defined CM templates will ensure consistency of the presentation layer (i.e., Web, Kiosk, etc.) as well as automatically ensuring compliance with ADA and other mandates. Workflow components with the CM software will ensure the integrity of the quality assurance and approval process.

Investigate Voice Recognition Technology

Research has begun on the feasibility of incorporating voice recognition into the IVR system, where appropriate. Such a capability will make it even easier for County residents to use the IVR facility.

Ensure ADA compliance

The e-government staff is committed to adhering to both the dictates and spirit of ADA accessibility guidelines and mandates. The addition of all new information areas and business functionality will include ADA compliance as a principal focus.

Collaborate on cross government initiatives

The Fairfax County e-government staff will continue to pursue initiatives to bridge the division between governmental entities. This process is already underway. The Kiosks are currently viewed as a regional resource with participation from Fairfax City, the town of Warrenton and others. Discussions with several other local jurisdictions are in progress. In the near future, the County Kiosks will include the DMV application to allow residents to apply for and renew vehicle registrations, licenses, etc.

The County is also a leading member of the "Government Without Boundaries" initiative. This initiative, which also includes GSA, the Commonwealth of Virginia, State of New Jersey, the City of Virginia Beach, and several other jurisdictions, is an attempt to provide the relevant information for programs and services across governmental boundaries (local, State, Federal). A prototype application is under development with an expected rollout during the fall/winter of 2001. The ability to easily include relevant information across jurisdictional boundaries will provide County residents with a true portal to government information and services.

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Bridge the Digital Divide by providing information services on more than one platform

The County's e-government programs will continue to ensure that no resident is left out of the e-government opportunities due to a lack of technical knowledge or economic situation. The e-government staff will continue to explore alternative methods of service delivery to those without access to computers or the Internet.

Consolidate Electronic Payments across all platforms

With the recent selection of a single "e-payments" vendor, the e-government staff plans to consolidate payment services across the delivery platforms. This consolidation will result in increased internal efficiencies. A single "e-payment engine" will also allow staff to quickly add new payment-based services that require credit cards or e-check.

Requirements for true 24/7 support

It is anticipated that the increased reliance on e-government programs will result in the establishment of these initiatives as mission critical. Such a designation will mandate an evaluation of the requirements for supporting true 24/7 access. These requirements would include an examination of the staffing, budgetary and infrastructure implications.

Security

The ongoing effort to make more information and services available through e-government programs will require a detailed examination of security issues. On the one hand, all the information that could be made available should be made available. On the other hand, sensitive information, as well as the County technical infrastructure, must be protected. Issues such as hackers, intrusion detection, virus protection and others must be addressed.

Capacity Planning

The increase in e-government programs and initiatives will have an impact on infrastructure capacity including network bandwidth, storage, processing speed, etc. It is anticipated that many of these programs will include business transformation for internal processing. Facilities will be put in place to allow ongoing monitoring of the infrastructure requirements so that County staff may proactively make adjustments and upgrades as needed.

Video Streaming

Video streaming technology is continuing to evolve. The availability of high-speed connections will make the capability a viable option for delivering information. The e-government staff is currently evaluating a number of video streaming options and it is anticipated that a pilot program will be initiated within FY 2002.

Internet-based Application Platform

More and more application systems will be designed and built on the Internet platform. This paradigm shift will require a robust and flexible architecture to support these applications. Already, Internet staff within the e-government staff is in the process of evaluating and implementing a Software Configuration Management system (SCM) to support such development. The SCM will provide will version and release control, code audit capability, and rational migration architecture for ensuring code and application integrity. Other facilities will be put in place to allow web-enabled access to legacy systems and for Enterprise Application Integration (EAI).

HIPAA Compliance

It is expected that the mandates of the HIPAA legislation will have far-reaching impact on all County programs and systems, including those for e-government. The County e-government staff is already evaluating these requirements with the intention of being fully compliant by the 2003 implementation date.

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Cooperative Ventures with Schools

The e-government staff continues to explore opportunities for cooperative ventures between the County Government and County Schools. The County team worked with staff from the Schools in order to provide a more seamless integration between the two web sites. School web staff will likewise work with County staff when the Schools web site is redesigned. Staff from the Schools has been invited to participate in the information architecture project.

Other

Because of the power of electronic data interchange and associated implications, these technologies are becoming more under scrutiny of lawmakers to ensure privacy and protections. We expect additional requirements to avoid inappropriate penetration and attacks to maintain the security and integrity of our e-government environment as we continue to roll out e-government. The e-government CAPS is supported by the Information Protection, Asset & Policy Management, Communications Technologies, and Information Technologies Initiatives (104) CAPS in DIT. The e-government program works collaboratively to support the GIS, Corporate Applications, and Enterprise Technology Services CAPS in DIT.

► Method of Service Provision

The County's e-government programs are provided by a combination of internal staff and contracting support with specialized expertise and skills. County staff performs approximately 80 percent of the work. Contract services are used on an as-needed or special projects basis. For example, County staff developed the new web site design and navigation. Contract services were used to assist in converting the approximately 15,000 pages to the new format. Contract services were also used for the development of several web applications. In addition, contract services provide systems maintenance for IVR hardware and operating system software. It is anticipated that this mix of internal staff with contract support as required will continue. The site is available 24 x 7 and the staff of the branch respond to emergency outages on an 'on-call' basis.

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► Performance/Workload Related Data

Objective: To increase the number of transactions available to citizens and businesses offered after business hours.

Title		FY 1999 Actual	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Output: Number of transactions/ Use Sessions processed for public service technologies	IVR	662,473	726,056	756,102*	945,128
	Kiosk	58,097	60,102	61,235*	63,035
	WEB	4,320,000	6,480,000	8,640,000*	11,520,000
Service Quality: New business areas offered through Public Access		6	8	14*	19
Outcome: Percentage of public service transactions after business hours		22%	23%	23%*	25%

*This is actual data through June 30, 2001.